

CONSERVATION PRACTICE STANDARD

HEDGEROW PLANTING

(Feet)

CODE 422

DEFINITION

Establishing a living fence of shrubs or trees in, across, or around a field.

PURPOSES

To delineate field boundaries, serve as fences, establish contours, provide wildlife food and cover, provide visual screens or improve the landscape.

CONDITIONS WHERE PRACTICE APPLIES

In, across or around fields of all landusers except woodland. Tree or shrub plantings for windbreaks or snow manipulation will be planned using the Field Windbreak (392) standard. Plantings to filter water pollutants should be planned using the Filter Strip (393) standard or Riparian Forest Buffer (interim) Standard.

CRITERIA

Hedgerow plantings may be established for a single purpose or multi-purpose use. Hedgerow plantings for fences or screens should be continuous. Hedgerows for field boundaries, contour guides, wildlife habitat and landscape improvement can be intermittent.

When planting hedgerows for wildlife habitat, herbaceous strips should be planted adjacent to continuous hedgerows. Refer to the Field Border (386) standard for recommendations on herbaceous seedings. Also, plant 50 to 100 feet of evergreens every 300 to 400 feet of hedgerow.

Hedgerows can be up to eight rows wide. Hedgerows planted to improve wildlife habitat will be a minimum of three rows wide and include rows of both trees and shrubs, or shrubs only.

CONSIDERATION

Effects on Water Quality

Multiple-row hedgerow plantings on the contour will have a significant effect on reducing soil erosion and sediment transport. Runoff velocities are reduced, allowing suspended sediments and organic compounds to be filtered. Infiltration of soluble nutrients and pesticides may increase. Tree, shrub and herbaceous root systems within hedgerows will utilize nutrients. Hedgerow plantings can provide habitat for predators of pest insects, potentially reducing pesticide application.

Effects of Water Quantity

Hedgerow plantings can affect localized water budgets by reducing surface runoff, increasing infiltration and increasing snowcatch. Other water budget factors affected by hedgerows are evapotranspiration soil moisture and snow melt.

PLANS AND SPECIFICATIONS

Site specific plans and specifications will include a planning map and narrative statement addressing kinds and amount of seedlings, and timing, method, spacing and sequence of planting. Refer to the Trees and Shrubs (Planting Dates) map in Section I of the Pennsylvania Technical Guide (PATG) for appropriate planting dates.

OPERATION AND MAINTENANCE

Mark hedgerow plantings so the area will not be mowed, accidentally sprayed or damaged by farm equipment. Protect from fire and grazing.

Control weeds a minimum of one foot around each seedling by mowing or with herbicides for at least two years or until the seedlings are well established. To prevent rodent damage, do not mulch within one foot of seedling. Replace dead seedlings during the first two years.

Hedgerow plantings established for screens or landscape improvement may be shaped or pruned.

Older, established hedgerows may be improved for wildlife habitat by topping non-food producing trees over ten feet high and interplanting species listed in Tables 1 and 2.

HEDGEROW PLANTING CONSTRUCTION SPECIFICATION

Species Selection

Select species from Table 1 (trees) or Table 2 (shrubs) according to the landuser's objectives and preferences within the Plant Hardiness Zones and soil suitabilities (refer to the Trees and Shrubs (Planting Dates) map in Section I of the Pennsylvania Technical Guide (PATG)). Other species that are adapted to the site and local weather conditions may be substituted for those on the list. The use of two or more species is recommended to reduce disease and pest damage, and to increase wildlife habitat diversity.

Spacing

A. Between rows:

Trees, 10 – 12 feet
Shrubs, 6 – 8 feet

B. Within rows:

Trees, 10 – 12 feet
Shrubs, 4 – 6 feet

Use staggered spacing in multiple-row hedgerows. Wider spacings may be used when planting only for the wildlife food production: trees should be planted a minimum of 16 feet apart within rows and shrubs should be planted a minimum of eight feet apart within rows.

NOTE: Shrub lespedeze plantings should be a minimum of six feet wide. The seedlings should be planted only one to two feet apart, both between and within rows.

When calculating the number of seedlings required, increase the nursery order by at least five percent to allow for damaged or stunted plants.

Site Preparation

Destroy existing vegetation within a minimum of 18 inches of each seedling site by tillage or with herbicides.

Planting

Refer to the Trees and Shrubs (Planting Dates) map in Section I of the Pennsylvania Technical Guide (PATG) for appropriate planting dates.

Prepare holes or slots wide enough and deep enough to insert roots without “J-rooting” (root tips bent upwards). Keep roots moist until planted and place root crown at ground level (or a maximum of one inch below ground level) when inserting roots. Do not expose root crown above ground!